## **Scientifically Based Research Characteristics**

- Uses methods that draw on observation or experiment;
- Involves rigorous data analyses to test hypotheses and justify conclusions;
- Employs reliable and valid measurements;
- Uses experimental (random assignment to treatment and control group) or quasi-experimental (no random assignment to treatment and comparison group) designs;
- Ensures studies are presented in enough detail for replication or building on findings; and/or
- Accepted by a peer-reviewed journal or approved by a panel of independent experts.

Adapted from U.S. Department of Education Policy Guidance "Guidance for the Reading First Program" April 1, 2002

http://www.ed.gov/programs/readingfirst/guidance.doc Retrieved on May 8, 2007 from http://www.schoolsmovingup.net/cs/nclb/view/nclb/15

(exact text below from SchoolsMovingUp)

- employs systematic, empirical methods that draw on observation or experiment;
- involves rigorous data analyses that are adequate to test the stated hypotheses and justify the general conclusions drawn;
- relies on measurements or observational methods that provide reliable and valid data across evaluators and observers, across multiple measurements and observations, and across studies by the same or different investigators;
- is evaluated using experimental or quasi-experimental designs in which individuals, entities, programs or
  activities are assigned to different conditions and with appropriate controls to evaluate the effects of the
  condition of interest, with a preference for random-assignment experiments, or other designs to the extent that
  those designs contain within-condition or across-condition controls;
- ensures experimental studies are presented in sufficient detail and clarity to allow for replication or, at a minimum, offer the opportunity to build systematically on their findings; and/or
- has been accepted by a peer-reviewed journal or approved by a panel of independent experts through a comparably rigorous, objective and scientific review.

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